Technical/Final Report
to
Saskatchewan Agriculture Development Fund

Microcomputer Training For Saskatchewan Farmers

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FINAL REPORT

for the ERDA Project

MICROCOMPUTER TRAINING FOR SASKATCHEWAN FARMERS

Submitted to: Mr. Doug Windsor
Provincial ERDA Co-ordinator
March 31, 1987

Submitted by: Lionel M. Prefontaine
Settler Computer Technologies Inc.

Microcomputer Training for Saskatchewan Farmers

Executive Summary

The objective of this ERDA project were to increase the level of computer literacy among Saskatchewan farmers and to help Saskatchewan farmers become aware of the benefits which can result from using a microcomputer. The two-day, twelve hour hands-on Farm Computing Workshops were made available in 29 different communities across rural Saskatchewan. An average of 9 Saskatchewan farmers attended each of the fourty-two workshops presented between March 1, 1986 and February 17, 1987.

The workshops were presented by four different farm computing experts including three Professional Agrologists. Basic computer skills on starting and operating a microcomputer were followed by hands-on use of farm computing software. An overview of the software evaluation process and evaluation of the costs versus benefits of a farm computer system followed.

The authors conclude that the project did indeed meet its objectives. An overview of responses from participants are completely positive in tone. Responses reflect first, that the learning objectives were obtained (computer literacy); and secondly, that the participants became more aware of the benefits and costs of a microcomputer system.

Almost to a person, participants responded positively when asked if they would recommend a workshop to other farmers.

Background and Objectives:

The objectives of the project were:

1) To increase the level of computer literacy among Saskatchewan farmers.

2) To help Saskatchewan farmers become aware of the benefits which can result from using a microcomputer as an information tool.

The general level of understanding of microcomputer systems among Saskatchewan farmers is very low. This may account for the existing resistance to the adaptation of computer technology in agricultural production. The result is that the benefits which can accrue to a producer from using a computer for information management are not being realized by the vast majority of Saskatchewan farmers.

Until recently, the only serious option available to farmers who wish to learn about farm computing is a five day course offered by the Wascana Institute of Applied Arts and Sciences in association with Community Colleges. Our objective was not to compete with this service, but to supplement it.

Another major farm computer course was introduced through Canada Manpower as part of the new federal "farmer re-training" initiative. This course was made available in 1987 through Deloitte, Haskins & Sells Associates in Saskatoon. It is a ten day course featuring hands-on computer training and focuses on improving financial management by farmers.

Again, the Farm Computing Workshops offered through this project do not compete with the objectives and format of the new federal program.

Structure and Organization

The farm computing workshop was designed as a two day, twelve hour hands-on computer course. The course outline is contained in Appendix A. Between eight and nine hours of the total course time was specifically designated for hands-on use of microcomputers.

Student material included several pages of handouts which are contained in Appendix B. The Saskatchewan Agriculture publication "Farm Computer Software", was also used by students and handed out at every workshop.

At the conclusion of the workshop, a brief questionaire was given to participants so that they could outline their views on the workshop. This questionaire is contained in Appendix C.

The workshops were organized by Settler with the participation of Saskatchewan Wheat Pool Farm Service Centres, Saskatchewan Regional Community Colleges and Settler Computer Technologies dealers.

Settler made registration forms and informational pamphlets available to agents who advertised the availability of the workshops in their local area. The agent then contacted Settler via a toll-free number to book dates for the workshop. Appendix D outlines the general information provided to agents organizing seminars.

Settler was fortunate in being able to acquire several well qualified and competent instructors for the workshops. Appendix E provides a brief background on each of the four people who instructed workshops.

Results and Discussion

The project began in earnest March 1, 1986. The original results were disappointing due specifically to the lack of microcomputer hardware. Several unsuccessful attempts to organize Farm Computing Workshops led Settler to conclude that it would be necessary to purchase microcomputer hardware if the project were to be successful.

Four courses were booked and given in March of 1986.

Settler purchased six microcomputers on November 1, 1986 for the specific use of Farm Computing Workshops. In addition, Settler had completed a marketing agreement with the Saskatchewan Wheat Pool. As part of the agreement, Saskatchewan Wheat Pool Farm Service Centres assisted in promoting Farm Computing Workshops to Saskatchewan farmers.

On January 1, 1987, Settler purchased another six microcomputers for Farm Computer Workshops. The demand for workshops was such that four to six workshops were booked per week through the months of January and February. Appendix F contains a list of workshop dates and locations to February 19, 1987.

Participant questionaires from 29 workshops are contained in File A. Also contained in File A is a listing of the names and addresses of workshop participants.

Appendix G contains the preliminary cost data for workshops conducted to February 19, 1987. 358 Saskatchewan farmers participated in 42 Farm Computing Workshops conducted in Saskatchewan through this project thus far. An average of 8.8 farmers participated in each workshop.

Conclusion and Impact

Following is a summary of typical responses given by participants on the questionaire filled out at the conclusions of each workshop (see Appendix C):

Question 1: What were the most valuable parts of the workshop?

- Learning how to operate a microcomputer
- Using a computer for farm operations
- Better understanding of computer programs
- Hands-on work with computers
- Using farm management software
- Tax planning on the computer

All participants had a response to Question 1. The focus of comments stressed the importance of hands-on use of computers and of using farm management software.

Question 2: What would you like to have in the workshop that was not covered or completed?

- Other kinds of software or more software
- More time on the computer
- A more complete introductory session
- Not knowledgable enough to answer questions
- Too much material covered for the time allowed
- More accounting applications.

In the sample of 204 participants 81 participants left the question blank or answered "didn't know". The focus of comments stressed coverage of more applications or a longer course. Several respondants indicated satisfaction with the existing material and time allotted. The author concludes that a longer farm computing course, such as the ones available through WIAAS or Canada Manpower, would be of interest to many participants subsequent to the Farm Computing workshops.

Question 3: Was the instructor capable and was he able to answer all of your questions?

Virutally all of the participants indicated Yes to this question

Question 4: Would you recommend a workshop to other farmers? Why or why not?

- Yes, because of a computer's management capabilites
- Yes, to learn computer basics
- Yes, for people interested in keeping good records
- Yes, to decide how usefull a computer can be before making a buying decision
- Yes, but only to farmers interested in computers
- Yes, to get introduced to a computer

Virtually all participants responded positively to Question 4. Most responses focused on the benefits of learning to use a

microcomputer and on evaluating a computer system for farm use.

Question 5: In your opinion, is a microcomputer a valuable farm management tool? Why or why not?

- Yes, provides immediate and timely information
- Yes, better information to make better decisions
- Yes, saves time and work keeping records
- Yes, but you have to learn how to use it
- Yes, but the computer has to pay for itself
- Yes, but only for big farm operations

The vast majority of responses to Question 5 were positive. The responses proved to be a good cross-section of the more common opinions and views on the benefits and drawbacks of microcomputer.

Question 6: If a microcomputer is a valuable farm management tool, what application would you use it for?

- Financial recordkeeping
- Income tax management
- Production recordkeeping and management
- Word processing

Virtually all of the responses were positive. The author believes that responses on this last question were skewed towards the applications focused on for use in the Farm Computing Workshop itself.

Generally, the impact of the Farm Computing Workshop upon the participants was very positive. The first objective, "... to increase computer literacy among Saskatchewan farmers" proved successful. Almost all participants learned the basic skills to successfully operate a microcomputer at a "user" level. Furthermore, almost all participants demonstrated a familiarity with essential computer terminology in answering the questionaire at the conclusion of the course.

The second objective, "... to help Saskatchewan farmers become aware of the benefits which can result from using a microcomputer" was also well met. Again, the responses by participants to question 5 & 6, in particular, proved familiarity with the useful farm computing applications available.

To summarize the impact of this project, a total of 358 farmers have been given a direct and inclusive hands-on experience with microcomputers and microcomputer software used for farm management and obtained the basic skills to:

- Understand the difference between hardware and software
- Understand the capabilities and limitations of computer systems for farm management applications
- Develop the ability to comfortably discuss computing with others
- Understand how improved information can assist in

decision making
- Desire to learn more about computing with the objective of implementing the technology in his/her farm management activities.

These basic skills, as outlined in Appendix A of the ERDA Agreement for the project, were met by the vast majority of participants as is indicated by the questionaire responses.

Deviation from the ERDA Agreement

Several minor deviations from the ERDA Agreement for this project are:

1) A fee per student of $35 as opposed to $30 was charged each participant. This was decided upon because an average of 8.8 rather that 10 farmers attended each workshop. This established the average revenue per workshop at $308 as compared to $300.

2) 42 workshops were conducted as opposed to an estimated 30 workshops in the agreement. Again, an average of less that 10 participants per workshop necessitated more workshops to meet the total farmer participation under the agreement.

3) Settler purchased a total of twelve microcomputers at its own cost for use in the workshops. Initial efforts to organize workshops proved unsuccessful due primarily to the lack of adequate computer hardware. Subsequent success in organizing workshops once the hardware was available is proof of the necessity.

FARM COMPUTING WORKSHOP

IT'S YOUR BUSINESS"

A. Introduction:
- the microcomputer system
- brief history of computing devices
- current trends in micro-computer development

B. Micro-Computer Basics:
- boot-up a microcomputer
- use BASIC programs
- use BASIC programming language
- use essential DOS commands

C. Evaluating Software:
- the software development process
- the software evaluation process

D. Farm Accounting on Micro-Computer:
- describe major operating characteristics
- use SETTLER GOLD
- evaluate SETTLER GOLD

E. Crop Recordkeeping on Micro-Computer:
- describe major operating characteristics
- use the SETTLER Crop Production System
- evaluate the SETTLER Crop Production System

F. Other Software Applications for Farm Management:
- the electronic spreadsheet
- the word processing program
- livestock management software
- other software ie. education, business management, file handling

G. Workshop Summary
- getting started on a micro-computer system
- evaluate the costs and benefits of a micro-computer system for your farm

FARM COMPUTING WORKSHOP
"IT'S YOUR BUSINESS"

QUESTIONAIRE FOR PARTICIPANTS: Please help us to improve our workshop by taking a few minutes to answer the following questions:

1. What were the most valuable parts of the workshop?_____

2. What would you like to have in the workshop that was not covered or completed?_____

3. Was the instructor capable and was he able to answer all of your questions?_____

4. Would you recommend a workshop to other farmers? Why or why not?_____

5. In your opinion, is a microcomputer a valuable farm management tool? Why or why not?_____

6. If a microcomputer is a valuable farm management tool, what application would you want to use it for?_____

FARM COMPUTING WORKSHOP

"It's Your Business"

Workshop Outline:

Settler is providing two day Farm Computing Workshops in conjunction with the ERDA program administered by Saskatchewan Agriculture. The workshops are available for YOUR community to assist YOU in promoting farm computing to farmers in YOUR area. Here's an outline of how the workshop is set up:

1. The standard workshop will consist of two sessions of six hours per session, hands-on microcomputer training.

2. The preferred workshop times are:
   First day: 10:00 a.m. to 5:00 p.m.
   Second day: 9:00 a.m. to 4:00 p.m.

Other times of the day or evening are acceptable provided that you arrange the change beforehand with Settler.

3. The dealer must provide an acceptable location for the workshop.

4. Seminar registration fees and forms must be submitted to Settler five days prior to the workshop date.

5. Settler will provide up to six personal computers for the workshop. Settler will arrange computer hardware requirements with the dealer beforehand.

6. Settler will accept a minimum of six and a maximum of twelve participants at each workshop (maximum of two participants per computer).

7. Settler will provide all of the workshop material including workshop manuals, demonstration software, software documentation and educational materials.

8. Settler will cover the full cost of the workshop instructor including wages, travel and accomodation expenses from workshop registration fees and ERDA project money.

9. The workshop registration fees will be:

   $40 per farmer, or
   $60 per farm couple

101C HODSMAN RD., REGINA, SASKATCHEWAN, CANADA (306) 949-9393

Appendix E

Farm Computing Workshop Instructors

Gordon W. Blackmore, P.Ag.

Mr. Blackmore began his involvement with farm computers as Director of Dealer Operations with Farmfax Management Systems, Inc. Prior to this, he received an Agricultural Economics degree from the University of Saskatchewan. He was also President of the Student's Union for a 2 year term, serving on the University Board of Governors and was elected to the University Senate. Gordon is currently the Managing Director of Settler Computer Technologies, a position he has held for the past four years. Gordon remains interested in the vital interests of farming as he was with his family's farm near Moosomin, Sask.

Doyle E. Wiebe, P.Ag.

Mr. Wiebe brings with him extensive experience in the design and marketing of microcomputer applications for farms, as well as practical farm experience. Doyle obtained a Bachelor of Science degree from the Universyty of Saskatchewan and has been employed in various computer related capacities with Saskatchewan Agriculture, Agriculture Canada and Farmfax Management Systems, Inc. Doyle's experience with farm computing makes him one of the foremost experts in the industry. In addition to working on numerous projects for Saskatchewan Agriculture and Settler Computer Technologies, Doyle is farming his family's farm at Langham, Sask.

Lionel M. Prefontaine, B.Comm.

On completion of his degree at the University of Saskatchewan, Mr. Prefontaine joined Farmfax Management Systems, Inc. as a Marketing Representative. Following the formation of Settler Computer Technologies, in which he participated developing the original business plan, he was employed developing and instructing farm computer courses for Wascana Institute, Agriculture Division. After three years with Wascana, Lionel rejoined the Settler group to work as the Marketing/Education Director. In August of 1986, Lionel qualified for membership in the Saskatchewan Institute of Agrologists.

Rodney W. Kerr

Mr. Kerr attended Carlton University in Applied Sciences for several years before returning to his family farm at Goodwater, Sask. Rod was one of many farm computing innovators in Saskatchewan and developed a keen interest in the value of farm microcomputer applications. Rod brings many years of on-farm computing experience to Settler including instructing introductory computer courses for the South East Community College for several years. In addition to his work with Settler, Rod assists in marketing and servicing farm computer systems as a Farm Computing Consultant in Weyburn and farms with his brother in Goodwater where they raise purebred Charlais cattle.

ERDA Agreement: Final Attendance Report

Location	Dates	Participants
Goodwater	Nov 13 & 14	10
Lloydminster	Nov 23 & 24	12
Weyburn	Nov 26 & 27	12
Moose Jaw	Dec 1 & 2	6
Saskatoon	Dec 3 & 4	9
Humboldt	Dec 8 & 9	10
Shaunavon	Dec 8 & 9	10
Outlook	Dec 10 & 11	13
Fox Valley	Dec 12 & 13	7
Leader	Dec 15 & 16	7
Unity	Dec 17 & 18	7
Oxbow	Jan 5 & 6	13
Humboldt	Jan 5 & 6	8
Nipawin	Jan 7 & 8	8
Swift Current	Jan 7 & 8	7
Craik	Jan 12 & 13	6
Herbert	Jan 12 & 13	9
Yorkton	Jan 14 & 15	13
Lloydminster	Jan 14 & 15	7
North Battleford	Jan 16 & 17	7
Kerrobert	Jan 19 & 20	8
Moose Jaw	Jan 19 & 20	15
Saskatoon	Jan 21 & 22	10
Melville	Jan 23 & 24	6
Wadena	Jan 26 & 27	3
Raymore	Jan 28 & 29	11
Melfort	Jan 30 & 31	12
Frontier	Feb 2 & 3	9
Shaunavon	Feb 4 & 5	9
Whitewood	Feb 4 & 5	11
Bracken	Feb 6 & 7	7
Shanunavon	Feb 9 & 10	7
Unity	Feb 9 & 10	9
Regina	Feb 11 & 12	9
Chaplin	Feb 13 & 14	9
Rosetown	Feb 16 & 17	6
Weyburn	Feb 16 & 17	7
Oxbow	Feb 18 & 19	6

Total Participants March 1, 1986 to Feb 19 = 358

ERDA Grant @ $50 per participant	=	$17, 900.
Payments received to date	=	13, 400.
Current Balance due		4, 500.

Appendix G

Project Costs (Preliminary)

The following cost summary represents the actual cost attributed to the project as of March 31, 1987.

	Budget			Actual		
Overhead Costs	$1,250.00			$1,750.00		
Course Development	$1,500.00			$1,500.00		
			$2,750.00			$3,250.00
	$/Workshop	$/Student		$/Workshop	$/Student	
Instructor	$500.00	$50.00		$419.90	$49.39	
Lodging	$80.00	$8.00		$36.89	$4.34	
Travel	$85.00	$8.50		$85.17	$10.02	
Meals	$40.00	$4.00		$24.14	$2.84	
Material	$100.00	$10.00		$70.00	$8.24	
	$805.00	$80.50		$636.10	$74.83	
# of wkshop	30			41		
	$24,150.00		$24,150.00	$26,080.10		$26,080.10
Total Project Costs			$26,900.00			$29,330.10
Registration Fee			$9,000.00			$11,305.00
Funding Required			$17,900.00			$18,025.10

Note: Computers used in the workshops are not included in the cost summary. The market cost of a computer per month is $200. Over the three month duration of the project the hardware costs would total $7,200

March 31, 1987

Gordon W. Blackmore, P.Ag.
Managing Director
Settler Computer Technologies Inc.